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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,526	11/12/2003	Michiya Katou	1018.1192101	9310
28075	7590	03/07/2006	EXAMINER	
CROMPTON, SEAGER & TUFTE, LLC 1221 NICOLLET AVENUE SUITE 800 MINNEAPOLIS, MN 55403-2420			HUNNINGS, TRAVIS R	
			ART UNIT	PAPER NUMBER
			2632	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/713,526

Applicant(s)

KATOU, MICHIIYA

Examiner

Travis R. Hunnings

Art Unit

2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12 is/are allowed.
- 6) ☒ Claim(s) 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over McClelland et al. (McClelland; US Patent 6,710,708) in view of Mangafas et al. (Mangafas; US Patent 5,987,980).

Regarding claim 13, McClelland discloses *Method And Apparatus For A Remote Tire Pressure Monitoring System* that has the following claimed limitations:

The claimed tire valve attached to a wheel upon which the tire is mounted is met by the tire valve that is shown in figure 2;

The claimed transponder comprising a condition detecting device for detecting a condition of the tire is met by the tire monitors in each tire of the vehicle monitoring the pressure of the tire (column 1, lines 53-65);

The claimed coil antenna, which is induced by radio waves having a field intensity equal to or greater than a predetermined level to generate electricity is met by the tire monitor having a receiver circuit that has a tuned inductor coil that resonates in response to an activation signal from an exciter that also is used to power the tire monitor (column 4, lines 2-16) and the tire monitors in each tire of the vehicle including

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a switch which is activated by detection of a relatively low frequency signal transmitted from a nearby exciter and in response to the detected signal, the detector transmits tire characteristic data including identification information (column 1, lines 53-65). It is inherent that the low frequency signal transmitted from a nearby exciter must have a field intensity equal to or greater than a predetermined level in order for the tire monitor to be able to detect the signal. The claimed limitation of a "coil antenna" is interpreted as a coil of wire that is used to transmit and receive signals;

The claimed transponder wherein based on the electricity induced by the coil antenna the transponder detects condition of the tire with the condition detecting device and wirelessly transmits data representing the detected condition is met by the transponder transmitting data to the receiving unit of the vehicle after being activated (column 3, lines 59-61 and column 4, lines 31-61).

McClelland does not specifically disclose the claimed transponder being disposed within the tire valve nor the annular casing mounted on the tire valve, the annular casing having an accommodating portion that accommodates the coil antenna and a projecting portion projecting into the tire from the accommodating portion, the projecting portion accommodating the condition detecting device. Mangafas discloses *In Situ Tire Valve Assembly Employing Short Valve Element As Antenna* that teaches a tire pressure sensor with a coil antenna wrapped around the sensing element and the device being installed in a valve stem of a tire valve that projects into the interior of the tire as seen in figures 1 and 3 (abstract). Modifying the tire monitor of McClelland to be contained within the tire valve as taught by Mangafas would reduce the overall size and

allow the device to be installed in after-market tires and would also allow for easy removal for repair or replacement. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by McClelland according to the teachings of Mangafas place the transponder within the tire valve in an annular casing as claimed.

Allowable Subject Matter

3. Claims 1-12 are allowed.

4. The following is an examiner's statement of reasons for allowance:

With regard to independent claims 1 and 6, the prior art does not disclose nor suggest the claimed transponder or apparatus for monitoring a tire condition that detects a condition of a tire and wirelessly transmits data representing the detected condition wherein the transponder is stored in a tire valve having an annular casing mounted on the tire valve, the annular casing comprising an upper casing portion and a lower casing portion that are connected with each other along a plane intersecting an axis of the casing, the annular casing having an accommodating portion that accommodates the coil antenna and a projecting portion projecting into the tire from the accommodating portion, the projecting portion accommodating the condition detecting device, wherein the accommodating portion is formed at an upper periphery of the casing to extend across the upper casing portion and the lower casing portion, and wherein the projecting portion projects from the lower casing portion.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

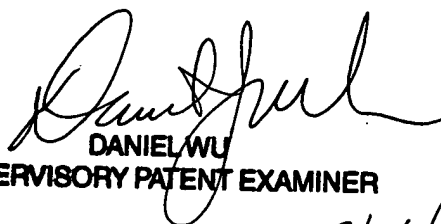
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis R. Hunnings whose telephone number is (571) 272-3118. The examiner can normally be reached on 8:00 am - 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRH


DANIEL WU
SUPERVISORY PATENT EXAMINER
03/06/06